

THE
CARTER CENTER



The Carter Center Preliminary Statement on Georgia's November 2022 Risk-Limiting Audit Process

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The Carter Center commends Georgia's 159 counties on completion of the 2022 risk-limiting audit process. The audit examined the Georgia secretary of state race and confirmed the original reported result, the reelection of Secretary of State Brad Raffensperger.

The Carter Center, which has observed more than 110 elections in 39 countries, was the only nonpartisan organization observing the audit. The Center was credentialed by the Office of the Secretary of State to provide an impartial assessment of the implementation of the audit process and had the same access provided to political party monitors.¹ The Center's observers reported that the process proceeded quickly and professionally in most of the counties observed. This is a credit to the hard work of Georgia's election officials, who were simultaneously preparing for the Dec. 6 U.S. Senate runoff while conducting the audit.

On Nov. 17 and 18, The Carter Center sent approximately 40 nonpartisan observers to watch the process in 34 counties.² They systematically collected information on each step of the process, including reporting on ballot security and chain-of-custody, the work of the two-person audit boards and vote review panels to interpret and count votes, and the data entry process used to record audit results via the centralized reporting software.³ The Center's observers were welcomed by election officials and were able to conduct their observation without hindrance.

This is a preliminary statement of their findings, based on observation on the audit days.⁴ A more detailed final report will be made public in the coming weeks.

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¹ Carter Center observers abide by the Center's code of conduct for election observers.

² Barrow, Bartow, Bibb, Catoosa, Chatham, Cherokee, Clarke, Clayton, Cobb, Coffee, Columbia, Dekalb, Douglas, Fannin, Fayette, Floyd, Forsyth, Fulton, Gilmer, Glynn, Gwinnett, Hall, Henry, Jackson, Lowndes, Muscogee, Newton, Oconee, Paulding, Pickens, Polk, Richmond, Rockdale, Walton.

³ The open-source risk-limiting audit software ARLO was developed by VotingWorks, a nonpartisan, nonprofit election technology vendor, with support from the U.S. Cybersecurity and Infrastructure Security Agency. Voting Works provided assistance to the Office of the Secretary of State in the implementation of the audit.

⁴ The Carter Center did not observe the creation or validation of the ballot manifest or the batch totals source data, or any other aspects of the audit preparation process.

Since 2019, Georgia has been required by statute⁵ to conduct a risk-limiting audit of one statewide contest in every even-numbered election year. In 2020, the selected contest was the presidential race. Because of the very close margin of that contest and the timeline of the audit, the secretary of state chose to conduct a full hand count of *all* ballots, rather than just a sample of ballots, as RLAs typically use. The 2022 secretary of state contest was won by a much wider margin (Raffensperger garnered about 53% of the vote). This audit, conducted Nov. 17-18, 2022, was Georgia's first opportunity to audit a statistically significant sample of the ballots and conduct a true RLA. The 2022 audit proceeded smoothly and peacefully at all locations observed.

Risk-Limiting Audits: The risk-limiting audit, which looks at a statistically significant random sample of paper ballots, is now considered the gold standard for post-election tabulation auditing. The number of ballots to be audited depends on both the margin of victory in the chosen contest(s) and the chosen “risk limit” for the audit — the maximum chance (say, 5 or 10 percent) that the audit might miss an incorrect outcome. The RLA process is currently in use in over a dozen U.S. states, and Georgia law now requires that an RLA with a risk limit at or below 10 percent be conducted prior to state certification of the election, placing Georgia in the forefront of adopting this approach to post-election auditing. This year, the specific type of RLA used was a Batch Comparison RLA.

Preparation began well in advance of the election, as county election staff processed, counted, and stored voted ballots, keeping them in the groupings in which they were counted (ballot batches). After the election, officials prepared a “ballot manifest,” or a record listing each of the carefully labeled containers of ballots, the number of batches of ballots stored in each container, and the number of ballots in each batch. Ballot batches vary greatly in size depending on the type of ballot — a precinct's cumulated early voting ballots could be a batch of several thousand; ballots arriving in the mail on a single day might constitute a batch of a dozen.

For this RLA, entire batches — rather than individual ballots — were selected for audit. The batches were chosen using an algorithm called a pseudo-random number generator, seeded with a random 20-digit number. That seed number was created by rolling 20 10-sided dice in a public ceremony, well-covered by the media, held at 3 p.m. on Nov. 16 on the south steps of the State Capitol. The resulting seed, the ballot manifests from each county, the vote totals as originally reported, as well as the chosen risk limit (in this case five percent), were fed into the risk-limiting audit software, which generated the list of randomly selected batches to be audited in each county. Because the seed, the software, and the ballot manifests are all now public, anyone running the software could produce the same list of batches for audit; there is complete transparency in the selection.

Because the margin of the selected contest was wide enough, some counties were not assigned any batches to audit during the RLA random selection. To give all counties experience with the RLA methodology, however, the secretary of state required every county to audit at least two batches of ballots, including both hand-marked ballots and those printed off the ballot marking devices (BMD) used during early and Election Day voting. These “extra” batches were not included in the statistical calculations for the RLA but were audited using the exact same RLA process. Neither counties nor observers knew which batches would contribute to the audit and which would not. Statewide, 328 batches totaling 231,072 ballots were audited. Thirty-six of those batches across 25 counties contributed to the RLA.

⁵ See OCGA § 21-2-498. The procedure for conducting the risk-limiting audit is stated in GA ADC 183-1-15-.04.

Preliminary Findings: Overall, Carter Center observers reported that the audit was conducted according to procedures and without significant problems, with fewer than 10% of counties having issues that required recounting or other mitigations. Audit spaces were well-organized, with sufficient room to allow observers to watch the counting process without interfering with the audit board members. Most counties observed by the Center finished auditing by early afternoon on the first day.

While counties were prepared to audit a large number of batches, in part because of their experience in 2020 when all the ballots were counted, this year they were able to “right-size” the operation when they learned the final number of batches they were assigned to audit. For example, DeKalb County had prepared space for 25 audit boards and five vote review panels but only called in staff for 13 audit boards and one vote review panel when they learned they would only be auditing about 6,000 ballots.

Audit Boards. The audit boards were generally staffed by election workers who were familiar with handling and reading ballots. Training observed prior to the start of auditing consisted of a brief orientation and a video prepared by VotingWorks, the vendor providing the audit software. There was, however, some variability among and within counties in the implementation of the audit process. For example, the recommended method for counting was not consistently implemented across the counties, resulting in occasional confusion about totals and extra time taken to recount batches. In two of the counties observed, counting had to be redone the following day because of some problems with mixing batches and transposing numbers. The Carter Center recommends that the required process be standardized, written down, more clearly demonstrated during training, and better enforced by audit supervisors. This procedural regularity prevents errors and extra burdens on already overloaded election staff. This will be particularly important in future audits when a closer margin may require auditing more batches. None of the inconsistencies noted by Carter Center observers affected the outcome of the process (as determined by significant, unresolved discrepancies between tabulated and audited vote totals).

Once votes from the ballot batches were counted, an election supervisor compared the total number of ballots counted in the batch with the total ballots reported for that batch on the ballot manifest. In some cases, the audited number differed by one or a few ballots (not an unexpected result in any hand-counting operation). If large discrepancies in the number of ballots were discovered, the supervisor had the option to recount. Note that only the total number of ballots in the batch were compared to decide whether audit boards should recount; by design, original candidate vote totals in each batch were not available for comparison until after the audit was over, so that tabulated vote counts did not influence the manual counts.

At all counties observed, chain-of-custody procedures were in place, with care taken to sign ballot containers out of storage, over to audit boards, and then back into storage. However, in one county, during the lunch break, two audit board tables were in the midst of counting a batch and the ballots were left unattended on the audit tables for a short time. Observers had these tables in view until a supervisor came to keep watch, so in fact there was no risk to these ballots. Expanding on current training that explains the point of maintaining the chain of custody would be helpful.

Vote Review Panels. In addition to observing the work of the audit boards, The Carter Center observed the work of the bipartisan vote review panels. These two-person committees were tasked with reviewing irregular ballots — ballots with write-in candidates, ballots that had to be

duplicated because the voter's mark on the original ballot wasn't clear, or ballots where there was a question about voter intent.

All counties observed had vote review panels staffed. However, a relatively small proportion of them were busy because only paper ballots marked by hand required interpretation. The main function of the vote review panels was to determine whether the write-in was qualified. Of the panels the Center observed, only 18 percent had visible access to Georgia's guide to voter intent that could have informed this work, but there were no actual disagreements observed. Since the mix of BMD-marked and hand-marked ballots might well be different in a future audit, counties should be prepared to supply guides and train about how to use them consistently.

The Democratic and Republican parties staffed the vote review panels. Two panel members in one county told Carter Center observers that little to no training was offered on their roles. At the audit site, an election supervisor gave them a brief overview of what they might see when reviewing the voter hand-marked ballots. Assuming that future audits may focus on races with closer results, parties and vote review panels need to be better prepared for consistent adjudication of disputed ballots.

Data Entry. In terms of transparency, data entry was the most challenging aspect of the audit observation. Audit boards record their tallies for each audited batch on a tally sheet, and these must subsequently be entered into the audit software. Data entry should be clearly visible to monitors so they can confirm that tally sheets are accurately entered. Human data entry of numbers is notoriously error-prone, and all data entry should be observed as well as checked by a second election worker.

In the counties observed, data entry practices varied greatly — sometimes it was conducted by a single person, sometimes as batches were completed, sometimes at the end of the day, sometimes in the room where the audit was completed, sometimes elsewhere out of view. Even when done in the presence of observers, it was difficult to see the data-entry screen without walking behind to look over the operator's shoulder, which monitors were reluctant to do. Only about half of the Carter Center observers reported that they could see data-entry screens.

There is no indication that the timing and spatial arrangements were designed to conceal information, and reconciliations ensured that numbers were, in fact, accurate. Rather, it appeared that little thought was given to the role of transparency of data entry in building confidence in the process. In some states, each tally sheet is projected on a screen so that all monitors can see it, and the typed entries are simultaneously projected, ensuring that errors are caught immediately and visibly. The Carter Center urges the secretary of state and the county offices to adopt similar procedures for routine use in audits. This could eliminate one source of conflict should future audits be more contentious, as 2020 was.

Transparency and Access for the Public and Monitors. Carter Center observers reported that they had adequate access to assess the process and found that in all counties visited, the audit process was conducted transparently and was open to party and other official monitors as well as to general public observation.

Of the counties observed, only three reported no party monitors. Otherwise, one or two Democratic and Republican monitors were present in each county. Other monitors included Libertarian Party and State Board of Elections members. Members of the general public were present in only 24 percent of the counties visited and were restricted to viewing proceedings from marked-off areas,

as required by law. Media were seen in only three of the counties observed. Law enforcement or security were posted in only 20 percent of the counties, and there was only one reported instance of a monitor being disruptive.

Party monitors had to provide a letter from their designated party, sign in and take an oath, and wear a name tag. Party monitors were prohibited from interfering, touching ballots, or taking photos or recording the process. Party monitors were expected to maintain a safe distance from audit board personnel and not to hover over tables or speak to the audit board members while they were counting. The same rules applied to Carter Center observers.

Carter Center observers noted that party monitors were able to walk around the ballot counting area to observe audit boards at work and were generally able to hear the votes as they were read out and sorted into the appropriate piles to be counted. They also were able to witness the counting of the stacks of ballots. The Center notes that there was variability in the enforcement of monitor guidelines by county officials, particularly the rule about monitors talking to audit board members.

Carter Center observers reported that none of the party monitors had checklists or observation forms to record data, although some note-taking was observed. In general, it did not appear that the political parties had consistently trained their monitors on the audit process or on how to systematically collect information about the process.

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Overall, The Carter Center found that the RLA should increase confidence in the reported result in the secretary of state contest this cycle. The Office of the Secretary of State and Georgia's counties completed the audit while preparing for a runoff election, and did so fairly transparently through the provision of meaningful access to partisan and nonpartisan observers and the interested public. Problems encountered were minor and can be easily corrected in future audits through clarification and standardization of procedures and training.